of the Mississippi and La Plata, and to a lesser extent the rivers of the Guianas and the northeastern tributaries of the Amazons, the birds are guided largely by their direction, and the courses of the streams; but it seems as if outside of these areas, we must look for the key to the course of their flight in the direction of the winds, as by no other method can we satisfactorily explain (1) why they pass over the West Indies always from northwest to southeast, (2) why they are usually observed to migrate with a 'beam' wind, (3) why they never alight on Barbados or the other West Indies if the wind is northeast, but only if it comes from the southeast or some other direction, not necessarily contrary to their course, (4) why they appear on the Massachusetts coast during northeast winds, but leave if the wind changes to the southwest or west, and (5) why they reach the South American continent in the Guianas on their journey south, but leave it at the isthmus of Panama in coming north.

LIST OF BIRDS SEEN IN JEFFERSON PARISH, LOUISIANA, APRIL 1, 1904.

BY H. H. KOPMAN.

The following list of 64 species seen by the writer and two companions, Messrs. Andrew and W. B. Allison, during an extended walk near New Orleans, April 1, 1904, presents the typical bird-life of the section at that season with an unusual degree of closeness to what might be considered the ideal typical state of the avifauna. The season was absolutely normal, no extremes of cold having occurred during the winter, and the spring having developed slowly but practically uniformly from small beginnings after the first week in January, and more rapidly and without the slightest interruption from the cold, after the 20th of February.

Because the list gives a typical view of our bird-life at the season in question, and because it is the largest Louisiana list of which I have any record, I have concluded that it would be of interest to observers in other parts of the country. It is not remarkable for rare species. In fact, there are scarcely any unexpected birds in it, while nearly everything that might have been expected in the character of country visited was recorded during the fifteen hours spent afield, from 6 A. M. to 9 P. M. No additional species was recorded after about 7.30 P. M. Resident birds, a few of the winter visitors, and summer visitors, arrived and arriving, gave the predominant character to the bird-life of the day. Species purely transient were little in evidence. The weather was too stable and rather too warm for the marked movement of transients that had been noted two days before.

Sixty-four Species of Birds seen by Andrew Allison, W. B. Allison, and H. H. Kopman, April 1, 1904, in Jefferson Parish,

Louisiana, West Bank of the Mississippi, opposite

New Orleans.

- I. Larus delawarensis. RING-BILLED GULL.— Several of these wintering gulls were still present on the river.
- 2. Florida cærulea. Little Blue Heron.—Though the species had arrived some time since, we saw only one in the country we crossed.
- 3. Nyctanassa violacea. Yellow-crowned Night Heron.— We saw two before dark and heard several after dark.
- 4. Gallinago delicata. Wilson's Snipe.—Andrew Allison was the only member of the party who touched at a spot where we are almost sure of finding the Snipe in spring. In this wet pasture he saw a few of the birds.
- 5. Helodromas solitarius. Solitary Sandpiper.— We saw but one, though it is usually common at this season.
- 6. Oxyechus vociferus. Killdeers.—The Killdeers were seen by Mr. Allison in the same spot as the Snipe.
- 7. Colinus virginianus. Bob-white.—Though not well established about New Orleans, this species is occasionally found in the vicinity. A covey that we have observed repeatedly was found in the usual place on open briery land.
 - 8. Cathartes aura. Turkey Buzzard.— Usual numbers.
 - 9. Catharista urubu. BLACK VULTURE.—Usual numbers.
- 10. Buteo lineatus (alleni?). (FLORIDA?) RED-SHOULDERED HAWK.—Saw one pair, circling rather high, but resident birds.
- 11. Syrnium varium alleni. FLORIDA BARRED OWL .- Heard several.

- 12. Megascops asio floridanus. FLORIDA SCREECH OWL.— Heard one after dark.
- 13. Ceophlœus pileatus. PILEATED WOODPECKER.— Though this species is rather common, and sometimes fairly conspicuous in the country through which we went, we heard but one this day.
 - 14. Dryobates pubescens. Downy Woodpecker.— Noted several.
- 15. Dryobates villosus audubonii. Southern Hairy Woodpecker. Noted one or two.
- 16. Centurus carolinus. Red-bellied Woodpecker.— In the growth of a slough which our road followed for a long distance, and in some rather deep woods through which we passed later, this species was very common.
- 17. Colaptes auratus. FLICKER.— This species is an infrequent breeder about New Orleans, and as all the winter residents had gone, we saw but one bird.
- 18. Chætura pelagica. Chimney Swift.—Though the first arrived the 19th of March, we saw but a few this day.
- 19. Trochilus colubris. Ruby-throated Hummingbird.—Thoroughly common. Arrived March 23.
- 20. Tyrannus tyrannus. KINGBIRD.— Never very common in Louisiana in spring. We saw but one. The first had been noted March 23.
- 21. Myiarchus crinitus. CRESTED FLYCATCHER.—Rather common along the slough where so many Red-bellied Woodpeckers were seen. Arrived March 30.
- 22. Sayornis phœbe. Phœbe.—A single bird still lingered where I had seen it on two recent trips. The day of its departure was very close at hand, the last never having been seen later than April 6.

In the matter of flycatchers, the trip was rather disappointing. March 30, two early arrivals, the Wood Pewee (Contopus virens) and the Greencrested Flycatcher (Empidonax virescens), had both appeared, one of each species being noted, but neither was seen April 1. The recording of the Green-crested Flycatcher March 30 antedated any previous arrival record for this latitude by six days, so it was not surprising that none was noted April 1. The Wood Pewee, however, might readily enough have been seen.

- 23. Corvus brachyrhynchos. American Crow.— Common.
- 24. Corvus ossifragus. Fish Crow.—We heard this species only early in the morning near the river.
- 25. Cyanocitta cristata florincola. Florida Blue Jay.— Seen in only one locality, a briery pasture bordered chiefly by small live and water oaks. At this one spot it is nearly always seen.
- 26. Agelaius phœniceus. Red-winged Blackbird.—The long slough was the only breeding situation of this species we visited. Here we saw a few. The bulk of the residents had departed for their breeding grounds in the marshes.
- 27. Molothrus ater. COWBIRD.— A single one was seen on the edge of a weedy field.

- 28. Sturnella magna argutula. Southern Meadowlark.—The observations made in regard to the Bob-white about New Orleans are applicable to this bird. Andrew Allison saw one of several that have become established in and about the pasture where he saw the Snipe and Killdeer.
- 29. Icterus spurius.— Orchard Orlole.— Males were very common, and we saw the first female. The first males arrived March 25.
 - 30. Quiscalus quiscula aglæus. FLORIDA GRACKLE. Abundant.
- 31. Megaquiscalus major. BOAT-TAILED GRACKLE.— Abundant, one large flock and many single birds being seen, though the majority had left for their breeding grounds in the marshes
- 32. Zonotrichia albicollis. White-throated Sparrow.— Rather common; singing occasionally.
- 33. Spizella pusilla. FIELD SPARROW.—This was certainly the most unexpected bird of the day, for while it is common in some parts of the bluffy and sandy lands further north in the State, it is rare in the flat alluvial lands of the southeast. The single one seen appeared in the same spot where I had seen one March 23, and was doubtless the same bird. This was in the dry, brier-grown pasture to which reference has already been made.
- 34. Melospiza georgiana. Swamp Sparrow.— Not very common, but showing about normal numbers for the season.
- 35. Passerculus sandwichensis savanna. SAVANNA SPARROW. Only a few seen in the morning.
- 36. Pipilo erythrophthalmus. Towhee.—Seen at only one spot, the thickets about the pasture where we saw the Blue Jays and the Field Sparrow.
- 37. Cardinalis cardinalis. CARDINAL.—As noisy, melodious, and abundant as ever.
- 38. Cyanospiza cyanea. INDIGO BUNTING.—There was no increase over the number seen March 30, when the species arrived. About 3 were seen.
- 39. Piranga rubra. Summer Tanager.— A male in all but perfect plumage was recorded as the first arrival for 1904. This is next to the earliest date of which I have any record, one having been seen by Andrew Allison at Bay St. Louis, Miss., March 31, 1902.
- 40. Progne subis. Purple Martin.—The only one I observed was heard in New Orleans in the morning just before I crossed the river.
- 41. Hirundo erythrogastra. BARN SWALLOWS.—The only ones we saw were three or four that passed with some Tree Swallows in the morning. These were the first arrivals recorded.
 - 42. Iridoprocne bicolor. TREE SWALLOW. Ordinarily common.
- 43. Vireo olivaceus. RED-EYED VIREO.—Rather common, at least well distributed. The first had arrived at Covington, in the pine woods north of New Orleans, March 20.
- 44. Vireo noveboracensis. White-eved Vireo.— In normal abundance.

- 45. Compsothlypis americana ramelinæ. PARULA WARBLER.— As abundant as usual, many having begun to nest. Arrived March 7.
- 46. Protonotaria citrea. PROTHONOTARY WARBLER.—Hardly as widely distributed as March 30. The first came March 19.
- 47. Helinaia swainsonii. Swainson's Warbler.—In a brake of switchcane in a rather dense wood of Texas red oak, water oak, live oak, box elder, red maple, ash, haw, hackberry, and elm, where we can usually count on finding this species in spring, we heard several singing, and Andrew Allison took one specimen. The notes of this species were almost constantly intermingled with those of the Hooded Warbler, to which they bear considerable resemblance. We observed that the first part of the song was tremulous and quavering, highly modulated and slightly complex, but that the termination was very similar to notes of the Hooded Warbler. The species had probably arrived several days before. We have never been able to prove that the spot where we found it is a breeding ground, though the species is well established there in the middle spring.
- 48. Dendroica dominica albilora. Sycamore Warbler.— The species was not singing much. The first arrived March 12.
- 49. Dendroica coronata. Myrtle Warbler.— Noted only a few. The bird is sometimes still abundant this late, but the mild character of the whole spring had advanced their movement a week or so.
- 50. Dendroica æstiva. Yellow Warbler.— Where I had seen the first bird of the season, March 30, in some willows in the slough, there was still one this day. It was doubtless the same bird, and was in song as on the previous occasion. April 2 had been the earliest date for arrival previous to this.
- 51. Geothlypis formosa. Kentucky Warbler.—There had been no special increase in numbers over the number seen March 30, when the first arrived.
- 52. Geothlypis trichas. MARYLAND YELLOW-THROAT.— Saw only a few.
- 53. Wilsonia mitrata, HOODED WARBLER.—As abundant as usual. The first had arrived March 12.
- 54. Parus carolinensis. Carolina Chickadee.— Nothing out of the ordinary was noted in regard to this common resident.
- 55. Bæolophus bicolor. TUFTED TITMOUSE. In statu quo, like the Chickadee.
- 56. Mimus polyglottos. Mockingbird.— Owing to the prevalence of trapping in Jefferson Parish before the new bird law was passed, Mockingbirds have not been very common there of late years, and we saw only a few, at distant points.
- 57. Galeoscoptes carolinensis. Catbird The spring transients of this species are rarely present here in large numbers. We saw but two.
- 58. Toxostoma rufum. Brown Thrasher.— Common and somewhat musical. These birds were probably all transients, certainly not summer visitors, as the species is not known as a breeder in southern Louisiana.

- 59. Thryothorus ludovicianus. CAROLINA WREN.—As conspicuous and musical as the Cardinal.
- 60. Troglodytes aëdon. House Wren.—This winter visitor was still present, some half dozen being noted.
- 61. Hylocichla mustelina. Wood Thrush.—We noted only two or three. The first came March 26.
- 62. Hylocichla guttata pallasii. HERMIT THRUSH.— Had become very scarce. We were constantly watching for them, but saw only two.
- 63. Polioptila cærulea. Blue-gray Gnatcatcher.—Though the date of its general arrival had long passed, it was not particularly common this day.
- 64. Regulus calendula. Ruby-crowned Kinglet.—Saw only one, probably the last, though the species has often been seen a week later, and on one occasion as late as April 18.

Several species that we might readily have expected to see were:

- I. Laughing Gull (Larus atricilla). Had disappeared from the river rather earlier than usual for its breeding grounds on the coast.
 - 2. Wood Duck (Aix sponsa).
 - 3. White Ibis (Guara alba).
 - 4. Great Blue Heron (Ardea herodias).
 - 5. Green Heron (Butorides virescens).
 - 6. Pectoral Sandpiper (Actodromas maculata).
 - 7. Bartramian Sandpiper (Bartramia longicauda).
 - 8. Belted Kingfisher (Ceryle alcyon).
 - 9. Painted Bunting (Cyanospiza ciris).
 - 10. Rough-winged Swallow (Stelgidopteryx serripennis).
 - 11. Loggerhead Shrike (Lanius ludovicianus).
 - 12. American Pipit (Anthus pensilvanicus).

All the water birds mentioned above and a half dozen more we should have been practically certain of noting had we been able to include in our itinerary some of the marsh and water surfaces of the parish, so that a spring list of 75 species in Southeast Louisiana would be by no means impossible to establish, though I should never expect to see that number exceeded.